

## **THE UNITED STATES DEPARTMENT OF ENERGY/NATIONAL NUCLEAR SECURITY ADMINISTRATION HAS COMPLETED A FIVE-YEAR REVIEW FOR THE LAWRENCE LIVERMORE NATIONAL LABORATORY'S LIVERMORE SITE**

The U.S. Department of Energy/National Nuclear Security Administration has completed the fourth Five-Year Review of its environmental cleanup at Lawrence Livermore National Laboratory's Livermore Site.

### **THE REVIEW PROCESS**

Superfund law requires that the protectiveness of cleanup actions be evaluated every five years when contaminants remain at the site above levels that allow unrestricted access. The purpose of the Five-Year Review is to evaluate the progress of the cleanup remedy towards achieving the Site's cleanup objectives, and whether the remedy continues to be protective of human health and the environment.

The Five-Year Review report summarizes the nature and extent of contamination and describes the U.S. Department of Energy's progress in cleaning up the Livermore Site. The final Five-Year Review report for the Livermore Site is now available to the public at the Laboratory's Environmental Repository in the Livermore Public Library located at 1188 South Livermore Ave, Livermore, CA 94550, [telephone (925) 373-5500]; the Laboratory Discovery Center, Greenville Road at East Gate Drive, Livermore, CA 94551, [telephone (925) 422-4599]; and online at <http://www-envirinfo.llnl.gov/>.

### **SITE HISTORY**

Lawrence Livermore National Laboratory's Livermore Site is an applied science laboratory operated by Lawrence Livermore National Security, LLC. The Livermore Site is located approximately three miles east of the downtown area of Livermore, California. The 800-acre Livermore Site was converted from agricultural use into a Navy flight training base and aircraft assembly and repair facility in 1942. In the 1950s, the Atomic Energy Commission converted the site into a weapons design and basic physics research laboratory. Initial hazardous materials releases occurred at the Livermore Site when the site was the Livermore Naval Air Station. There is also evidence that localized spills, unlined landfills, and leaking tanks and impoundments contributed volatile organic compounds, fuel hydrocarbons, metals, and tritium to the ground water and unsaturated sediments in the post-Navy era. By 1987, a plume of volatile organic compounds had migrated offsite about 2,200 feet west of the current Laboratory property. These past operations resulted in the Livermore Site being placed on the Environmental Protection Agency's National Priorities List in 1987. A Record of Decision was signed in 1992 that established the cleanup remedies and cleanup standards for the Livermore Site. Previous Five-Year Reviews were completed in 1997, 2002, and 2007.

### **CLEANUP OBJECTIVE**

The Livermore Site remedial action objectives are: (1) prevent future human exposure to contaminated ground water and soil, (2) prevent further migration of contaminants in ground water, (3) reduce contaminant concentrations in ground water to levels below

Maximum Contaminant Levels, and reduce the contaminant concentrations in treated ground water to levels below state discharge limits, (4) prevent migration in the unsaturated zone of those contaminants that would result in concentrations in ground water above Maximum Contaminant Levels, and (5) meet all existing permit discharge standards for treated water and soil vapor, and to treat vapor so that there are no measurable atmospheric releases from treatment systems.

#### **FIVE-YEAR REVIEW RESULTS**

The remedy at the Livermore Site is protective of human health and the environment for the site's industrial land use. The cleanup standards for ground water are drinking water standards. Because drinking water standards do not differentiate between industrial and residential use, the ground water cleanup remedy will be protective under any land use scenario upon completion.

The U.S. Department of Energy strongly believes that the remedy at the Livermore Site is protective of human health and the environment both in the short-term and the long-term. Although the U.S. Environmental Protection Agency has indicated that the long-term protectiveness of the remedy has not yet been demonstrated, the U.S. Department of Energy is committed to undertaking the necessary evaluations to prove the remedy is protective in all cases.

#### **FOR MORE INFORMATION:**

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